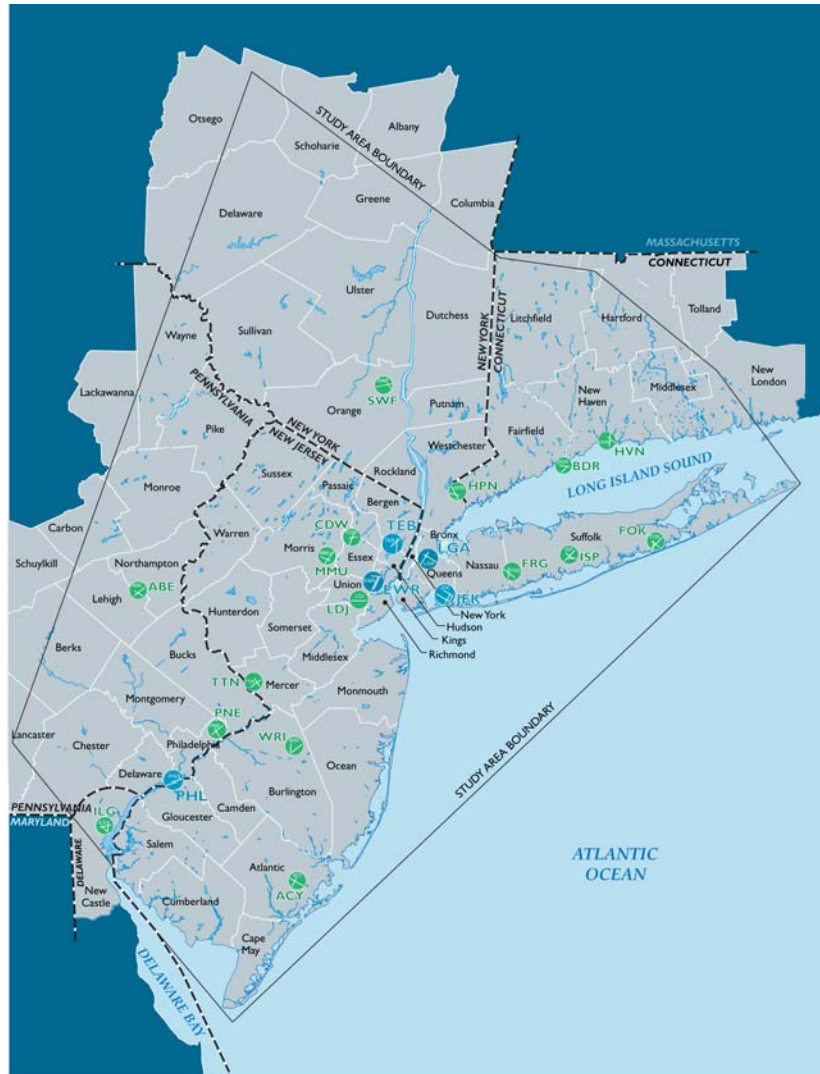




DRAFT ENVIRONMENTAL IMPACT STATEMENT



NEW YORK/NEW JERSEY/PHILADELPHIA METROPOLITAN AREA AIRSPACE REDESIGN



VOLUME ONE: DOCUMENTATION

DECEMBER 2005

Prepared by:

**United States Department of Transportation
Federal Aviation Administration**



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UNITED STATES DEPARTMENT OF TRANSPORTATION, FEDERAL AVIATION ADMINISTRATION, has prepared this Draft Environmental Impact Statement (Draft EIS) in accordance with the requirements and standards set forth in the FAA's Order 1050.1E, *Environmental Impacts: Policies and Procedures*. This Draft EIS evaluates impacts associated with the proposed airspace redesign in the NY/NJ/PHL Metropolitan Area, including the entire State of New Jersey and portions of Delaware, New York, Pennsylvania, and Connecticut. The purpose of this project is to increase the efficiency and reliability of the airspace structure and air traffic control system. The airspace redesign is needed to accommodate growth while maintaining safety and mitigating delays, and to accommodate changes in the types of aircraft using the system. Major airports affected by this airspace redesign include John F. Kennedy International Airport, Newark International Airport, Teterboro Airport, Philadelphia International Airport, and LaGuardia Airport. Four airspace redesign alternatives were considered in this Draft EIS: the No Action Airspace Alternative, the Modifications to Existing Airspace Alternative, the Ocean Routing Alternative, and the Integrated Airspace Alternative.

This Draft EIS is submitted for review pursuant to the following public law requirements: the National Environmental Policy Act of 1969, as amended, 42 USC Sections 4321-4347; , the Clean Air Act, as amended, 42 USC Sections 7401-7671; the Coastal Zone Management Act, as amended, 16 USC Sections 1451-1464; the Aviation Safety and Noise Abatement Act of 1979, as amended, Sections 47501-47507; Department of Transportation Act of 1966, Section 4(f), 49 USC 303(c); the Migratory Bird Treaty Act of 1981, 16 USC Sections 703-712; the National Historic Preservation Act of 1966, as amended, 16 USC Section 470; Executive Order 12989, Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations, and the Land and Water Conservation Fund Act Section 6(f) 16 USC Section 4601.

The FAA will consider and respond to all comments on the Draft EIS. These responses will be contained in the Final EIS. Comments on the Draft EIS will be accepted until June 1, 2006.

Please submit written comments on the Draft EIS to:

Steve Kelley, FAA NAR
c/o Nessa Memberg
12005 Sunrise Valley Drive, MS C3.02
Reston, VA 20191

Electronic Comments may be sent to:

faa.deis@ngc.com

(Please include the word "Comment" in the subject line)

For additional information call 1-866-EISLINE (1-866-347-5463)

A series of public workshops will be held throughout the Study Area from February to April 2006. Meeting location and schedule information can be obtained by calling the number listed above or via the following webpage: [**http://www.faa.gov/nynjphl_airspace_redesign**](http://www.faa.gov/nynjphl_airspace_redesign). The Draft EIS may also be viewed at this webpage.

EXECUTIVE SUMMARY

The Federal Aviation Act of 1958 delegates various responsibilities to the Federal Aviation Administration (FAA) including controlling the use of the navigable airspace and regulating civil and military operations in that airspace in the interest of maintaining the safety and efficiency of both of these operations. In its effort to continually maintain safety and increase efficiency of the airspace, the FAA is proposing to redesign the airspace in the NY/NJ/PHL Metropolitan Area.

This redesign was conceived as a system for more efficiently directing Instrument Flight Rule (IFR) aircraft to and from major airports in the NY/NJ/PHL Metropolitan Area, including John F. Kennedy International Airport (JFK) and LaGuardia Airport (LGA) in New York, Newark Liberty International Airport (EWR) and Teterboro Airport (TEB) in New Jersey, and Philadelphia International Airport (PHL) in Pennsylvania.

The purpose of this Draft Environmental Impact Statement (Draft EIS) is to evaluate the environmental effects of the NY/NJ/PHL Metropolitan Area Airspace Redesign (Airspace Redesign) in accordance with the National Environmental Policy Act of 1969 (NEPA).¹ This Draft EIS was officially initiated when the FAA issued a Notice of Intent (NOI) to prepare an EIS on January 22, 2001. The format and subject matter in this environmental study conform to the requirements and standards of the Council on Environmental Quality (CEQ) regulations² and the FAA as set forth in

FAA Order 1050.1E, *Environmental Impacts: Policies and Procedures*.

ES.1 PURPOSE AND NEED

The basic air traffic environment for the NY/NJ/PHL Metropolitan Area airspace was designed and implemented in the 1960s. Since that time, the volume of air traffic and the type of aircraft that use the air traffic control (ATC) system have changed significantly. However, the basic structure of the NY/NJ/PHL airspace has essentially remained the same and has not been adequately modified to address changes in the aviation industry, including increase air traffic levels and the use of new aircraft types. Therefore, the Airspace Redesign is needed to accommodate growth while maintaining safety and mitigating delays, and to accommodate changes in the types of aircraft using the system (e.g., smaller aircraft, more jet aircraft). The purpose of the Airspace Redesign is to increase the efficiency and reliability of the airspace structure and ATC system.

ES.2 PROPOSED ACTION

The Proposed Action for this Draft EIS is to redesign the airspace in the NY/NJ/PHL Metropolitan Area. This involves developing new routes and procedures to take advantage of improved aircraft performance and emerging ATC technologies.

The Proposed Action does not include any physical changes or development of facilities, nor does it require local or state actions. Therefore, no physical alteration to any environmental resource would occur and no permits/licenses would be required. Additionally, the Airspace Redesign would

¹ P.L. 91-190, 32 USC Section 3321 et. seq.

² 40 CFR Part 1500

not require changes to any Airport Layout Plan and infrastructure funding is not expected to be necessary.

Since the Airspace Redesign involves modifications to airspace configuration and air traffic management procedures, the project requires direct FAA action in order to be implemented. This consists of the design, development, implementation, and use of new or modified ATC procedures and reconfigured airspace.

ES.3 ALTERNATIVES

The examination of alternatives is of critical importance to the environmental review process. Those alternatives that meet the Purpose and Need will be included for detailed environmental analysis for the study years of 2006 and 2011.

The range of alternatives considered in this Draft EIS include those within the following categories: (1) alternative modes of transportation and communication, (2) changes in airport use, (3) congestion management programs, (4) improved air traffic control technology, and (5) airspace redesign. Of the five categories of potential alternatives considered, alternatives one through four are not carried forward for detailed analysis because they do not meet the Purpose and Need. Airspace Redesign is the only category that offers the potential to meet the Purpose and Need because the airspace redesign can result in an air traffic system with enhanced safety, reduced delays, and the ability to accommodate growth.

This Draft EIS considers four airspace redesign alternatives including:

- **Future No Action Alternative**, which assumes no changes to the existing airspace;

- **Modifications to Existing Airspace Alternative**, which includes modifications to current routes and procedures to improve efficiency in the current airspace system;
- **Ocean Routing Airspace Alternative**, proposed by the NJ Citizens for Environmental Research (NJCER), which moves all flights departing from Newark International Airport over the Atlantic Ocean before turning in the direction of their final destinations; and
- **Integrated Airspace Alternative**, integrates the New York Terminal Radar Approach Control's (New York TRACON's) airspace with portions of surrounding Air Route Traffic Control Centers' airspace to operate more seamlessly.

These alternatives are described in the subsections that follow. Descriptions of each alternative are followed by a summary of the Purpose and Need evaluation. The alternatives are evaluated based on Purpose and Need, operational viability, and operational efficiency criteria. Operational viability refers to whether a particular airspace redesign is workable and thus, safe. Operational viability criteria include reduced airspace complexity and reduced voice communications. Operational efficiency refers to how well a particular design works. Operational efficiency criteria include: reduced delay; balanced controller workload; meeting system demands; improved user access to the system; expedited arrivals and departures; increased flexibility in routing; and maintaining airport throughput.

ES.3.1 Future No Action Airspace Alternative

Although it does not meet the Purpose and Need of the Proposed Airspace Redesign Project, the Future No Action Airspace Alternative is analyzed as required by NEPA and CEQ regulations. Note that under the Future No Action Airspace Alternative, the airspace will operate as it did during existing or baseline conditions (2000), with the exception of two procedural changes (i.e., the Dual Modena and the Flip-Flop) that have been implemented and have independent utility with regards to the Airspace Redesign. As these changes have been implemented, they are included as part of the Future No Action Airspace Alternative. The only major difference between this alternative and present day operations will be in the type and quantity of aircraft operations otherwise known as the flight schedule.

ES.3.2 Modifications to Existing Airspace Alternative

This alternative takes the current routes and procedures and modifies them to improve efficiency in the current airspace system. The differences between this alternative and the Future No Action Airspace Alternative include additional departure headings as well as shifting of the NY Metropolitan Area airports' South departure gate and the PHL East departure gate.

New departure headings for LGA, EWR and PHL would be implemented as part of this alternative. For example, a more direct LGA Ocean departure procedure would be added.

In this alternative, the South departure gate is shifted 10 miles to the west. Departures to the south originating from JFK, LGA, TEB and EWR, would be shifted to the new

South departure gate. In addition, the PHL East departure gate would be shifted to the east; PHL departures to the east would have to continue farther east before turning to the northeast.

Arrivals in the Modifications to Existing Airspace Alternative would not be changed from today's configuration.

The Modifications to Existing Airspace Alternative enhances safety by reducing complexity. This alternative improves efficiency by increasing flexibility, maintaining airport throughput, and expediting departures. Therefore, this is a reasonable alternative for meeting the Purpose and Need of the Airspace Redesign and is carried forward for a detailed environmental analysis.

ES.3.3 Ocean Routing Alternative

The Ocean Routing Airspace Alternative is a proposal that was originally developed by the NJ Citizens for Environmental Research, Inc. (NJCER) at the request of the NJ Coalition Against Aircraft Noise (NJCAAN).³

The Ocean Routing Airspace Alternative proposes to move EWR departures out over the Atlantic Ocean prior to turning them west to their final destinations. This alternative proposes significant changes to EWR and JFK departures. It also creates a new JFK arrival post which is located approximately 10 miles east of Mantoloking Shores, NJ. In addition, LGA departures flying to the North gate remain east of the Hudson River for a longer distance prior to

³"Development of Air Traffic Routings for the Mitigation of Aircraft Noise in New Jersey," submitted to New Jersey Citizens for Environmental Research, Inc.; June 1993; Section 1.0 – Executive Summary, p. 1.

turning toward the North gate than in the Future No Action Airspace Alternative.

The purpose of the Ocean Routing Airspace Alternative is to reduce noise impacts on the citizens of New Jersey. The purpose of the Proposed Action is to increase the efficiency and reliability of the entire NY/NJ/PHL Metropolitan Airspace. Therefore, because the Ocean Routing Airspace Alternative is focused on reducing noise in one specific area and not on increasing the efficiency and reliability of the entire NY/NJ/PHL Metropolitan Airspace, it was apparent that from its inception this alternative did not meet the Airspace Redesign Purpose and Need. The evaluation of the Purpose and Need Criteria supported this finding. The Ocean Routing Airspace Alternative would not: reduce delay, balance controller workload, meet system demand, improve user access, expedite arrivals and departures, increase flexibility, nor maintain airport throughput.

Although it was apparent that the Ocean Routing Airspace Alternative would not meet the Purpose and Need, the FAA elected to include this alternative for a detailed environmental analysis due to the long standing concerns of the NJCAAN.

ES.3.4 Integrated Airspace Alternative

The Integrated Airspace Alternative integrates the NY TRACON airspace with portions of surrounding Center's airspace to operate more seamlessly in either a standalone (existing facilities) or consolidated manner. The Integrated Airspace Alternative could be accomplished either with standalone or consolidated facilities because the key component is a

common automation platform.⁴ The consolidated facility is called the Integrated Control Complex (ICC). ICC is an operational concept that would merge the current New York TRACON and New York Center into a single facility.

The Integrated Airspace concept would expand the airspace in which terminal separation rules could be used. Where en route airspace separation rules of five nautical miles are typically used today, this concept would allow for the use of three nautical mile terminal airspace separation rule. This would permit less restrictive separations to be used over a larger geographical area and at higher altitudes.

The initial phase of the Integrated Airspace Alternative involves modifications to a departure gate, as well as close-in departure procedures. This phase is called the Integrated Airspace Alternative Variation without ICC. The final phase will have two variations. The first variation maintains the same changes that were implemented in phase one, supporting future traffic growth. This, again, is called the Integrated Airspace Alternative Variation without ICC because the airspace structure does not change from phase one. The second variation of phase two involves full airspace consolidation as previously described, as well as modifications to multiple departure gates, additional arrival posts, and additional close-in departure procedures. The second variation is known as the Integrated Airspace Alternative Variation with ICC. Each variation of the Integrated Airspace Alternative is presented below and each is evaluated separately for the potential to meet

⁴ A common automation platform includes shared displays on screens, radar, data processing and presentation, and communications.

the Purpose and Need of the Proposed Airspace Redesign Project.

ES.3.4.1 The Integrated Airspace Alternative Variation without ICC

The major changes associated with this variation versus the Future No Action Airspace Alternative involve departures to the West gate from EWR, TEB, and LGA flights, and departure headings at EWR, LGA, and PHL. The West gate has been extended. The departure headings changes are the same as those in the Modifications to Existing Airspace Alternative, but how the aircraft transition to the expanded West departure gate will vary due to the movement of the gate. In addition, a new turboprop arrival route to TEB would be established as part of this alternative. No major changes would be made to JFK arrival or departure routings as a result of this design.

The Integrated Airspace Alternative Variation without ICC enhances safety by reducing complexity and voice communications. It improves efficiency by reducing delay, balancing controller workload, meeting system demands, improving user access to the system, expediting departures, increasing flexibility in the West gate area, and maintaining airport throughput primarily at EWR.

Therefore, this is a reasonable alternative for meeting the Purpose and Need of the Proposed Airspace Redesign Project and is carried forward for environmental analysis.

ES.3.4.2 The Integrated Airspace Alternative Variation with ICC

The second variation of the Integrated Airspace Alternative involves full airspace consolidation, as well as modifications to

multiple departure gates, additional arrival posts, and additional departure headings. The second variation is called the Integrated Airspace Alternative Variation with ICC.

This variation represents a full airspace consolidation and is a new approach to the redesign of airspace from NY to Philadelphia. Where current en route airspace separation rules of five nautical miles are typically used, this airspace redesign alternative would use three nautical mile terminal airspace separation rules over a larger geographical area and up to 23,000 feet MSL in some areas (as opposed to 19,000 feet MSL with current airspace structure).⁵ The airspace would be comprised of the majority of current NY TRACON and NY Center airspace, in addition to several sectors from Washington Center and Boston Center.

This variation would lead to reduced complexity, reduced voice communications, reduced delays, more balanced controller workload, increased ability to meet system demand, improved user access to the system, expedited arrivals and departures, greater flexibility in routing, and the ability to maintain greater airport throughput. Therefore, this is a reasonable alternative for meeting the Purpose and Need of the Proposed Airspace Redesign Project and is carried forward for a detailed environmental analysis.

ES.3.5 Comparison of the Airspace Redesign Alternatives

The Future No Action Airspace Alternative was carried forward as required by CEQ Regulations to provide a benchmark, enabling decision makers to compare the

⁵Many air traffic control altitudes are given in flight levels representing altitude above mean sea level (MSL) in increments of 100 feet (i.e., flight level 230 equates to 23,000 feet above MSL).

magnitude of environmental effects of the other alternatives. Two airspace redesign alternatives meet the Purpose and Need for the Airspace Redesign: Modifications to Existing Airspace Alternative and Integrated Airspace Alternative Variations with and without ICC. These alternatives were carried forward for detailed environmental analysis. Although the Ocean Routing Airspace Alternative did not meet the Purpose and Need, it was carried forward for environmental analysis to address long standing public concerns.

Each Airspace Redesign Alternative is qualitatively and quantitatively evaluated and compared based on the Purpose and Need Evaluation Criteria. The results of this analysis will be used by the decision makers as a means of comparing the alternatives to assist in selecting a preferred alternative.

The qualitative analysis is based on the expected results of a particular change relative to the existing airspace structure. For example, when a departure gate is added

it is expected that the ability of that alternative to meet system demands will improve. The existing airspace structure is equivalent to that of the Future No Action Airspace Alternative; therefore, all qualitative discussions relate changes to an alternatives' airspace design to the Future No Action Airspace.

The quantitative analysis is based on operational metrics obtained through the use of computer modeling of the Alternatives. Flight paths for each alternative are modeled using the Total Airspace and Airport Modeler (TAAM) fast-time simulation tool, which is used to calculate metrics. These metrics provide a basis for comparison of the Alternatives.

A summary of the quantitative evaluation of the Airspace Redesign Alternatives in terms of the Purpose and Need Criteria is presented in **Table ES.1**. The following paragraphs summarize the qualitative discussions of each of the Proposed Action Alternatives.

Table ES.1
Operational Comparison of Alternatives
(The most advantageous operational metric has been shaded and boldfaced)

Purpose & Need Evaluation Criteria	How Measured	Alternative				
		Future No Action	Modifications to Existing Airspace	Ocean Routing Airspace	Integrated Airspace	
					without ICC	with ICC
Reduce Complexity	Jet route Delays + time below 18,000 feet (minutes)	12	12	12	11	10
	Arrival Distance below 18,000 feet (nautical miles)	96	95	99	96	102
Reduce Voice Communications	Maximum Inter-facility handoffs per hour	525	525	521	529	382

Table ES.1 (continued)

Operational Comparison of Alternatives

(The most advantageous operational metric has been shaded and boldfaced)

Purpose & Need Evaluation Criteria	How Measured	Alternative				
		Future No Action	Modifications to Existing Airspace	Ocean Routing Airspace	Integrated Airspace	
					without ICC	with ICC
Reduce Delay	Traffic weighted arrival delay 2011 (minutes)	22.9	22.6	23.6	22.8	19.9
	Traffic weighted departure delay 2011 (minutes)	23.3	20.9	29.5	20.8	19.2
Balance Controller Workload	Equity of West gate fix traffic counts	0.37	0.37	0.37	0.34	0.30
Meet System Demands & Improve User Access to System	End of day's last arrival push (time)	23:54	23:54	23:54	23:54	23:00
Expedite Arrivals and Departures Expedite Arrivals and Departures	Time below 18,000 ft (minutes)	18.5	18.2	18.8	18.2	18.6
	Change in route length per flight (nautical miles) ⁽¹⁾	0.0	0.0	4.5	-1.2	3.7
	Change in block time (minutes per flight) ⁽¹⁾	0.0	-0.9	3.9	-1.0	-1.4
Flexibility in Routing	Delay saved per flight per day (minutes)	0	0	0	0	12.6
Maintain Airport Throughput	Arrival Maximum Sustainable Throughputs	223	223	223	223	238
	Departure Maximum Sustainable Throughputs	238	239	221	240	245

Notes:

(1) A negative value indicates a net decrease in the category.

Source: Operational Analysis of NY/NJ/PHL Metropolitan Area Airspace Redesign Alternatives, (MITRE Technical Report - MTR 05W0000025, March 2005, Table ES-1. Summary of Operational Impacts, p. ix.)

The Modifications to Existing Airspace Alternative increases departure efficiency to the west by fanned headings and by splitting the major westbound airway (J80) into two independent airways. This alternative has small benefits.

The Ocean Routing Airspace Alternative will increase route distance and flying time for EWR, LGA, and JFK. Departure efficiency at EWR is greatly reduced. JFK arrivals and departures share one part of the airspace, thereby increasing complexity. The reroute of departures from EWR and JFK increases airspace complexity above PHL which is already a bottleneck in the en route system. These drawbacks are not offset by operational benefits.

Like the Modifications to Existing Airspace Alternative, the Integrated Airspace Alternative Variation without ICC increases departure efficiency to the west by fanned headings and by splitting the major westbound airway (J80) into two independent airways. In addition, this variation reduces congestion on the South departure gate. This variation shows a slight increase in required interfacility voice communications.

The Integrated Airspace Alternative Variation with ICC provides the most substantial operational benefit of any of the designs. It is a wholesale restructuring of arrival and departure routes. Efficiency is increased by more use of available runways and departure headings. Airspace delays are virtually eliminated and route flexibility is enhanced. Flying distances are increased for many flights, but the delay reductions are large enough to make this a net benefit to traffic.

ES.4 STUDY AREA

The Study Area is defined as the geographic area potentially environmentally impacted by the proposed action. The Proposed Airspace Redesign Project Study Area encompasses the entire state of New Jersey and portions of four other states: Connecticut, Delaware, New York, and Pennsylvania (See **Figure ES.1**). The Study Area is comprised of approximately 31,180 square miles and encompasses all or portions of 64 counties, 490 independent cities as well as other municipal areas.

Criterion from FAA Order 1050.1E was used to determine the Study Area for the Proposed Airspace Redesign. According to FAA Order 1050.1E, the altitude ceiling for environmental considerations regarding airspace studies is 10,000 feet above ground level AGL. The highest point in the Study Area is 4,000 feet MSL at Hunter Mountain, New York, making the overall altitude ceiling of the Study Area 14,000 feet MSL (resulting in 10,000 feet AGL). Thus, using input from the Airspace Redesign Team, the Study Area was created to encompass the geographic areas where proposed changes to aircraft routes occurred below 14,000 MSL. This Study Area is then the basis for the analysis of the alternatives and their potential impacts associated with alternative routings for aircraft flying IFR at altitudes up to 14,000 feet MSL.

ES.5 STUDY AREA AIRPORTS

Because there are many public and private airports in the Study Area, the air traffic flows to and from these airports are highly interrelated. The NY/NJ/PHL Metropolitan Area Airspace Redesign focuses on five major airports and 16 satellite airports in the Study Area. The five major airports are as follows:



Airports within the Study Area

Figure ES.1

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- John F. Kennedy International (JFK)
- LaGuardia (LGA)
- Newark Liberty International (EWR)
- Teterboro (TEB)
- Philadelphia International (PHL)
- McGuire Air Force Base (WRI)

The 16 satellite airports are as follows:

- Allentown/Lehigh Valley International (ABE)
- Atlantic City International (ACY)
- Bridgeport/Igor I. Sikorsky Memorial (BDR)
- Caldwell/Essex County (CDW)
- Westhampton Beach/ The Francis S. Gabreski (FOK)
- Islip Long Island MacArthur (ISP)
- Linden (LDJ)
- Morristown Municipal (MMU)
- Newburgh/Stewart International (SWF)
- New Haven/Tweed-New Haven (HVN)
- Northeast Philadelphia (PNE)
- Republic (FRG)
- Trenton/Mercer County (TTN)
- White Plains/Westchester County (HPN)
- Wilmington/New Castle County (ILG)

The five major airports and 16 satellite airports in the Study Area are depicted in Figure ES.1.

While there are many satellite airports physically located within the Study Area, they were not included in the operational modeling or noise analysis. The decision to include or exclude airports was based on the fact that the Airspace Redesign applies to IFR operations. Airports without a significant amount of IFR traffic were not modeled because there will be little or no change to their operations as a result of the Proposed Action. The resulting list of airports to be modeled was reviewed and found to be consistent with the airports that may be impacted based on the Proposed Action.

ES.6 ENVIRONMENTAL CONSEQUENCES

The Proposed Airspace Redesign Project does not include construction of any infrastructure, and as such is not expected to cause adverse environmental impacts to most resource categories relating to the physical environment. Thus, the following resource categories would not be affected by the Proposed Airspace Redesign Project:

- Coastal Resources
- Construction Impacts
- Farmlands
- Floodplains
- Hazardous Materials, Pollution Prevention, and Solid Waste
- Water Quality

- Wetlands
- Wild and Scenic Rivers

The following resource categories were also evaluated for potential impacts, but further analysis was not deemed necessary for the reasons stated:

- Air Quality - since the Proposed Action Airspace Redesign alternatives would be considered *de minimus* actions and would have little effect on vehicle traffic, no negative air quality impacts would be expected.
- Light Emissions and Visual Impacts – Radar data indicates that areas where lower altitude airspace changes would take place are likely already exposed to aircraft lights and aircraft flights; therefore, no light emissions or visual impacts would be expected in these areas. In addition, because of the unique cultural qualities of Tribal Lands, additional analysis of potential visual impacts on Native American Tribes located in the Study Area was completed. It was determined that Tribal Lands were either subject to minor changes in aircraft routes or were already exposed to regular overflights. Therefore, the implementation of any of the Airspace Redesign alternatives would not result in significant visual impacts to Tribal lands within the Study Area.
- Natural Resources and Energy Supply – The proposed changes in air traffic procedures are intended to improve air traffic flow and enhance the safe operation of aircraft within the airspace structure. With the exception of the Ocean Routing Airspace Alternative, the Proposed Action Airspace Redesign alternatives propose changes in air

traffic procedures that would result in more direct routing and less delay. When compared to the Future No Action Airspace Alternative, these alternatives would result in reduced fuel consumption; therefore, significant impacts to natural resources and energy supply are not expected.

Resource categories that would potentially be impacted by the Proposed Airspace Redesign Project are discussed in the following subsections.

ES.6.1 Noise/Compatible Land Use

Noise increases resulting from implementation of the Proposed Action may affect the quality of the human environment and are analyzed in this Draft EIS. Noise impacts are analyzed by predicting the community exposure to aircraft noise attributable to each of the Proposed Action Airspace Redesign alternatives. The analysis focuses on the change in aircraft noise associated with each Proposed Action Airspace Redesign alternative as compared to the Future No Action Airspace Alternative conditions. The change in aircraft noise is compared to the noise impact criteria to determine the level of potential noise impacts. The results of the noise analysis are also used to determine whether the existing and planned land use is compatible with the change in noise exposure.

The analysis includes determination of aircraft noise exposure in the Study Area as forecast for the years 2006 and 2011. The analysis focuses on the noise conditions for specific locations at the population centroids (i.e., centers of census blocks) using the Day/Night Average Sound Level (DNL). The number of people exposed to various noise levels is estimated based on the number of people residing in the census

block corresponding to the centroid being evaluated. The noise exposure results are presented in terms of noise level and change criteria set forth by the FAA in Order 1050.1E.

The FAA has established 65 DNL as the threshold above which aircraft noise is considered to be incompatible with residential areas. In addition, the FAA has determined that a significant impact occurs if a proposed action would result in an increase of 1.5 DNL or more on any noise-sensitive area within the 65 DNL exposure level.⁶

Three categories of impacts are examined in this analysis, based on FAA Order 1050.1E:

- Significant Impacts: 1.5 DNL minimum increase resulting in 65+ DNL noise exposure, or 1.5 DNL minimum increase where noise exposure already exceeds 65 DNL
- Slight to Moderate: 3 DNL minimum increase resulting in noise exposure between 60 and 65 DNL, or 3.0 DNL minimum increase where noise exposure is already between 60 and 65 DNL
- Slight to Moderate: 5 DNL minimum increase resulting in noise exposure between 45 and 60 DNL, or 5 DNL minimum increase where noise exposure is already between 45 and 60 DNL

Tables ES.2 and ES.3 present a summary of the affected population projected in 2006 and 2011 for each alternative in terms of the FAA threshold criteria. The table is color coded based on the centroid mapping scheme presented in **Figures ES.2 through**

ES.5. The analysis indicates that each of the alternatives would result in some changes where noise exposure is increased to within one of the FAA criterion thresholds.

In terms of significant noise impact changes (+1.5 DNL in 65 DNL) the noise analysis indicates that with the exception of the Ocean Routing Airspace Alternative, each airspace alternative is expected to generate significant noise impacts in the future. This is largely due to the fact that the Modifications to Existing Airspace and the Integrated Airspace Alternatives include departure heading changes at the major airports while the Ocean Routing Airspace Alternative uses the current headings. The Modifications to Existing Airspace Alternative tends to create the fewest significant impacts and has the best aggregate significant impact totals. The Integrated Airspace Alternative Variations both generate similar levels of significant impacts in the future.

Therefore, it may be concluded that the implementation of the Modifications to Existing Airspace or the Integrated Airspace Alternatives would result in significant noise impacts. These significant noise impacts to noise sensitive areas would also be considered a significant impact in terms of land-use compatibility. Mitigation measures to avoid, minimize, rectify, reduce, eliminate, or compensate for these significant impacts will be considered in the Final EIS.

ES.6.2 Socioeconomic Impacts and Environmental Justice

According to FAA Order 1050.1E, the proposed changes in air traffic procedures should be evaluated for their potential to result in the relocation of residences and businesses; alter surface transportation patterns; divide established communities;

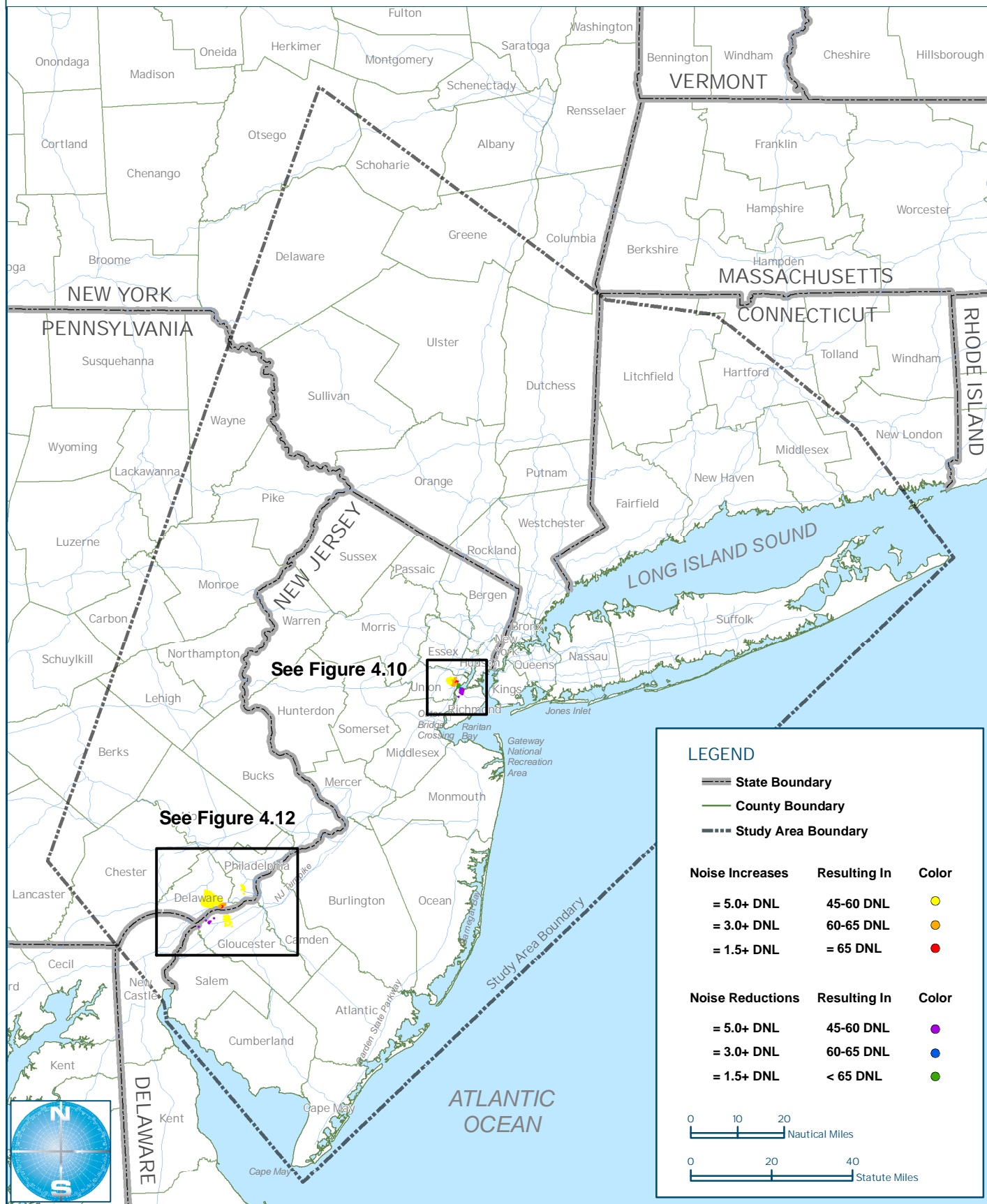
⁶ FAA Order 1050.1E; 14 CFR Part 150 Section 150.21(a)(2)(d); FICON 1992, Pp. 3-5.



2011 Modifications To Existing Airspace Alternative Change In Noise Exposure

Figure
ES.2

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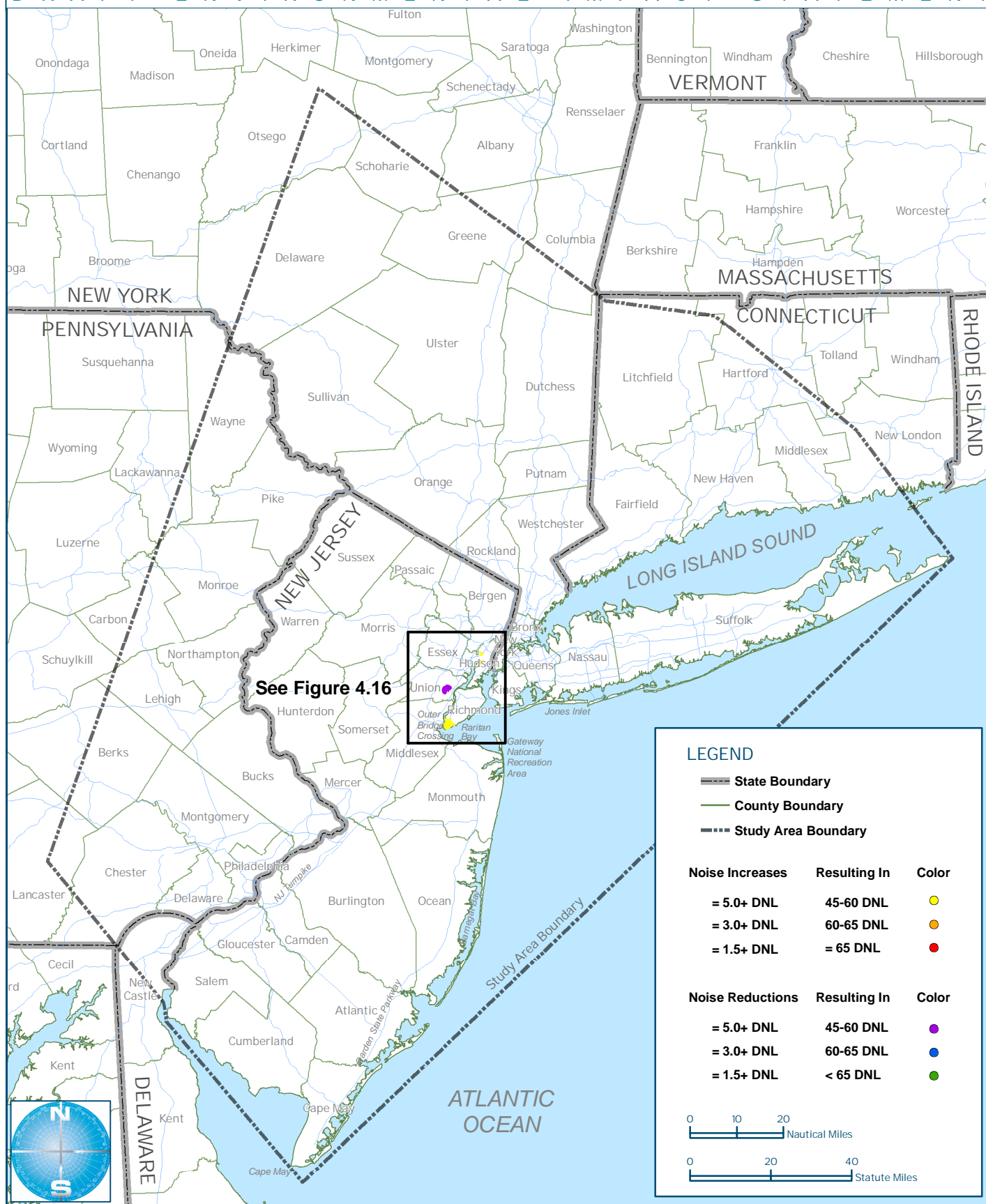




2011 Ocean Routing Airspace Alternative Change In Noise Exposure

Figure
ES.3

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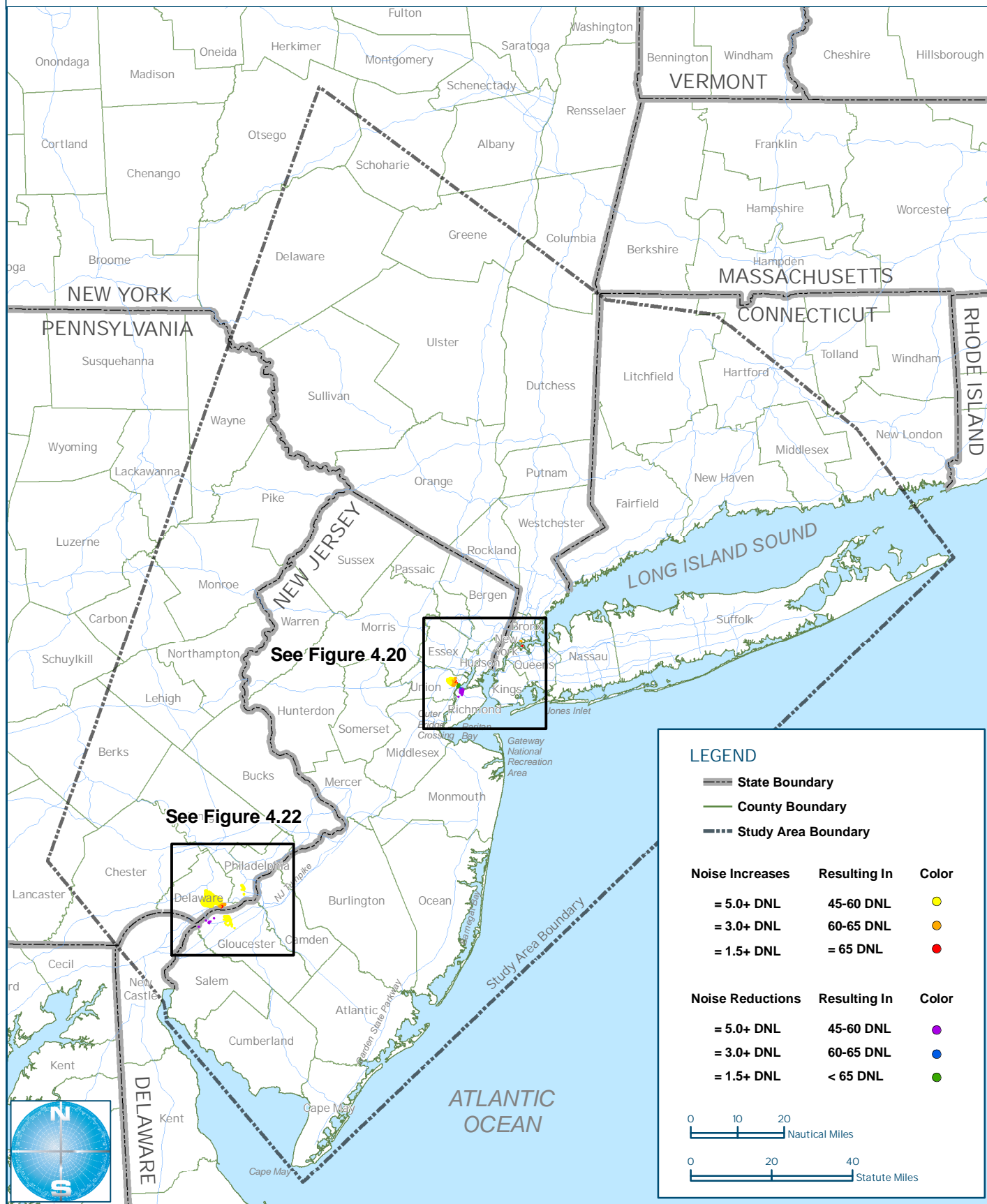




2011 Integrated Airspace Alternative Variation Without ICC Change In Noise Exposure

Figure
ES.4

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2011 Integrated Airspace Alternative Variation With ICC Change In Noise Exposure

Figure
ES.5

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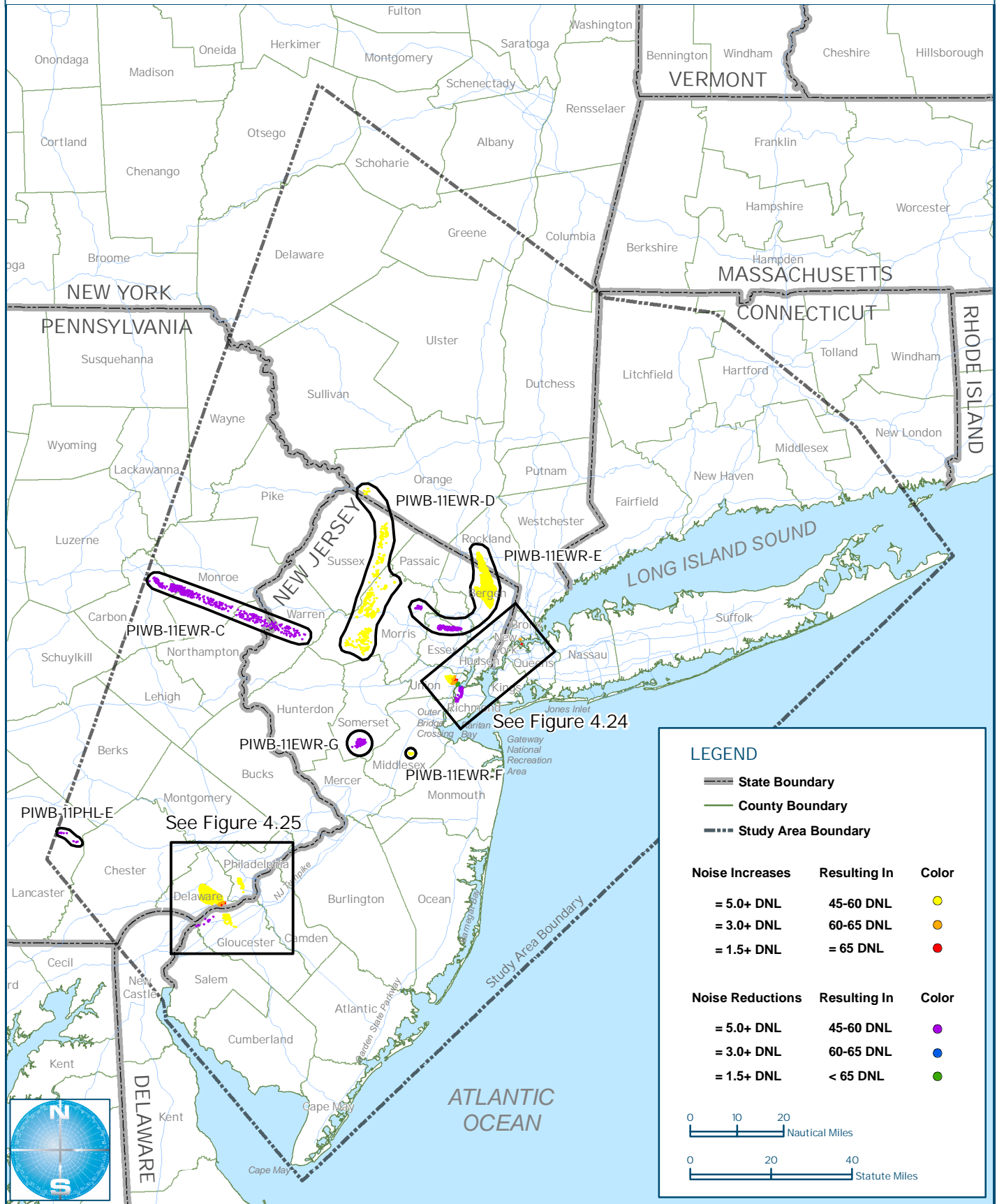


Table ES.2

Project Alternative Comparison – 2006 Population Impact Change Analysis Summary

	DNL Noise Exposure With Proposed Action		
	65 DNL or higher	60 to 65 DNL	45 to 60 DNL
Minimum Change in DNL With Alternative	1.5 DNL	3.0 DNL	5.0 DNL
Level of Impact	Significant	Slight to Moderate	Slight to Moderate
Noise Increases			
Modifications to Existing Airspace	8,068	36,803	142,559
Ocean Routing Airspace	0	0	7,504
Integrated Airspace Variation without ICC	16,290*	36,828	138,840
Noise Decreases			
Modifications to Existing Airspace	5,970	1	36,628
Ocean Routing Airspace	180	1,600	117,988
Integrated Airspace Variation without ICC	5,970	1	37,120

*Note that 12,834 persons of this total are transient population passing through the jail on Rikers Island.

Source: NIRS Analysis, Landrum & Brown/Metron Aviation Inc. 2005.

Table ES.3

Project Alternative Comparison – 2011 Population Impact Change Analysis Summary

	DNL Noise Exposure With Proposed Action		
	65 dB or higher	60 to 65 dB	45 to 60 dB
Minimum Change in DNL With Alternative	1.5 dB	3.0 dB	5.0 dB
Level of Impact	Significant	Slight to Moderate	Slight to Moderate
Noise Increases			
Modifications to Existing Airspace	1,010	33,280	109,482
Ocean Routing	0	0	18,633
Integrated without ICC	13,584*	33,212	109,803
Integrated with ICC	15,538*	34,705	281,884
Noise Decreases			
Modifications to Existing Airspace	5,094	22	8,440
Ocean Routing	0	0	16,166
Integrated without ICC	5,094	22	8,695
Integrated with ICC	6,984	22	60,591

*Note that 12,846 persons of these totals are transient population passing through the jail on Rikers Island.

Source: NIRS Analysis, Landrum & Brown/Metron Aviation Inc. 2005

disrupt orderly; planned development; or to create an appreciable change in employment.

The proposed alternatives would not result in the construction of facilities. Therefore, the alternatives considered would not result in a direct impact causing the relocation of residences or businesses; alteration of

surface transportation patterns; division of established communities; disruption of orderly; planned development; or creation of an appreciable change in employment.

Although direct socioeconomic impacts would not be expected, there is the potential for indirect impacts because all of the Proposed Action Airspace Redesign

alternatives except the Ocean Routing Airspace Alternative would potentially result in significant noise impacts. All of the significantly impacted census blocks are located in the vicinity of LGA, EWR, and PHL. These areas are already exposed to extensive aviation noise. In addition, because of their urban setting ambient noise is also high in these areas. For example the noise levels recorded at noise measurement sites near EWR ranged from 64 to 68 DNL (See Section 3.3.2, Background Noise Measurement.) Therefore, it would be unlikely that residences or business would relocate, surface transportation patterns would be altered, established communities would be divided, planned development would be disrupted or employment levels would be changed as a result of any of the Airspace Redesign Alternatives. Therefore, socioeconomic impacts are not likely as a result of any of the Airspace Redesign Alternatives.

Executive Order 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low Income Populations*, and the accompanying Presidential Memorandum and Order DOT 5610.2, *Environmental Justice in Minority and Low-Income Populations*, require the FAA to identify and address disproportionately high and adverse human health or environmental impacts on low-income and minority populations in the communities potentially impacted by the Proposed Action. In order to comply with Order DOT 5610.2, the FAA must conduct meaningful public involvement with minority and low-income populations and analyze the potential for disproportionate adverse impacts to these communities.

Public involvement included informal pre-scoping meetings and formal scoping meetings. Pre-Scoping meetings were held from September 1999 to May 2000.

Scoping meetings were held between January and June 2001. FAA presentations at these meetings included project information such as the need for the Proposed Action, to accomplish potential alternatives to the Proposed Action and the environmental process. During the pre-scoping and scoping meetings, the public was encouraged to comment on issues regarding the EIS.

All these meetings were designed with sensitivity to low-income and minority populations. To conduct meaningful public involvement, the FAA considered the special needs of the low-income and minority communities. Special needs were accommodated by holding meetings in locations accessible by public transit, providing translators, advertising meetings in specialized local foreign language media, and contacting community and church leaders.

The environmental justice analysis examined the areas significantly impacted by noise for disproportionate adverse impacts to low income and minority communities. Areas near LGA, EWR, and PHL would be significantly impacted by noise resulting from the Airspace Redesign alternatives.

One census block near LGA would be significantly noise impacted by the Integrated Airspace Alternative Variation without the ICC and the Integrated Airspace Alternative Variation with ICC. This block consists of the entirety of Rikers Island, which is New York City's main penal facility. Riker's Island is projected to have a population that is over 91% minority in 2006 and over 92% minority in 2011. Therefore, the population of Rikers Island would be considered a minority population.

Census blocks near EWR would be significantly impacted as a result of the Modifications to Existing Airspace and Integrated Airspace Alternatives. The minority population of the significantly impacted census blocks near EWR exceeds 50% in both 2006 and 2011. Therefore, the population of the significantly impacted census blocks would be considered a minority population.

The population of the significantly noise impacted census blocks near PHL was not found to be a minority or low income population.

Therefore, the significant noise impacts near LGA and EWR would constitute a disproportionate impact on a minority population. The Modifications to Existing Airspace Alternative, Integrated Airspace Alternative Variation without ICC, Integrated Airspace Alternative Variation all would result in disproportionate impacts to minority populations and therefore would result in significant environmental justice impacts. Mitigation measures to avoid, minimize, rectify, reduce, eliminate, or compensate for these significant impacts will be considered in the Final EIS.

ES.6.3 SECONDARY OR INDUCED IMPACTS

Major development proposals have the potential to produce induced or secondary impacts on surrounding communities. Induced impacts could include shifts in population and growth; increased (or decreased) demand for public services; and changes in business and economic activity within the confines of the Study Area.

Significant induced impacts would normally result from significant impacts to other impact categories especially noise, compatible land use and social impacts.

Therefore, potential secondary impacts were considered based on analysis of noise, land use, and social impacts. There is potential for significant noise impacts with all of the proposed alternatives with the exception of the Ocean Routing Alternative, however, it is not expected that any of the Airspace Redesign alternatives would result in shifts in population and growth; increased demand for public services; or changes in business and economic activity.

All of the significantly impacted census blocks are located in the vicinity of LGA, EWR, and PHL. These areas are already exposed to extensive aircraft noise. In addition, because of their urban setting, ambient noise is also high in these areas. For example the noise levels recorded at noise measurement sites near EWR ranged from 64 to 68 DNL. Therefore, it would be unlikely that noise impacts associated with the Proposed Action Airspace Redesign alternatives would result in significant secondary impacts.

ES.6.4 Department of Transportation Act: Section 4(f)

Section 303(c), Title 49 USC, commonly referred to as Section 4(f) of the DOT Act,⁷ states that the "...Secretary of Transportation will not approve a project that requires the use of any publicly-owned land from a public park, recreation area, or wildlife and waterfowl refuge of national, state, or local significance or land from a historic site of national, state, or local significance as determined by the officials having jurisdiction thereof, unless there is no feasible and prudent alternative to the use of such land...and [unless] the project

⁷ Department of Transportation Act of 1966, § 4(f) [recodified at 49 USC 303 (c)].

includes all possible planning to minimize harm resulting from the use.”⁸

In regard to 4(f) properties the term use encompasses both direct and indirect impacts to Section 4(f) properties. The term use encompasses both physical use of the property as well as constructive uses. Indirect adverse impacts, such as noise, that prevent the use of Section 4(f) properties for their intended purpose are considered as constituting a constructive use. In determining whether there is a constructive use, the FAA must determine if the impacts would substantially impair the property. A Section 4(f) property is determined to be substantially impaired when the activities, features, or attributes of the site that contribute to its significance or enjoyment are substantially diminished. According to FAA Order 1050.1E, the Part 150 land use compatibility guidelines may be used to determine if there is a constructive use of a Section 4(f) property, if the guidelines are relevant to the value, significance, and enjoyment of that particular property.

The Airspace Redesign alternatives do not require land acquisition or facility construction. Therefore, the Airspace Redesign alternatives do not result in a physical use of any Section 4(f) property. However, because the Proposed Action Airspace Redesign alternatives would potentially result in significant changes in noise, constructive use of Section 4(f) properties is also addressed.

Two methods were used to evaluate noise impacts to the Section 4(f) properties. The first method was to determine which Section 4(f) properties were located within the significantly impacted census blocks by using the GIS land use data. The second

method was to input location data (latitudes and longitudes) for Section 4(f) properties within these census blocks into the noise model and calculate noise values at the specific Section 4(f) locations.

Based on these analyses it was determined that the noise level would potentially increase significantly at two historic sites located south of PHL: the Lazaretto and Printzhof sites. Although a significant noise change would result at both sites for the Modifications to Existing Airspace Alternative and the Integrated Airspace Alternative Variation without ICC, this noise would not result in a constructive use. A quiet setting is not a recognized purpose or attribute of either site. Therefore, Part 150 land use compatibility guidelines may be applied to determine where there is a constructive use. Since neither site is or is expected to be used as a residence these sites are compatible with noise exposure levels of up to 70 DNL. Since the noise exposure at these sites remains below 70 DNL, neither the Modifications to Existing Airspace Alternative nor the Integrated Airspace Alternative Variation without ICC would result in a constructive use of either historic site.

One other noise sensitive site, the Frank M. Charles Memorial Park, was identified for further analysis. As a result of the implementation of the Ocean Routing Airspace Alternative (2006) the noise exposure at this park increased to 65.0 DNL. The Frank M. Charles Memorial Park, is part of the Gateway National Recreation Area located in the heart of the New York metropolitan Area. Due to this Park’s urban setting and given it is intended to provide outdoor recreation for large numbers of people, a quiet setting would not be a recognized purpose or attribute of the Frank M. Charles Memorial Park. Therefore Part 150 land use compatibility guidelines may

⁸ FAA Order 1050.1E, Appendix A, page A-19.

be applied to determine where there is a constructive use. According to the compatibility guidelines, a park is compatible with noise exposure levels of up to 75 DNL. However, if a park's features include an amphitheatre, a lower level of noise exposure is appropriate. Noise exposure of less than 65 DNL is considered compatible with an amphitheatre. There is not an amphitheatre within the Frank M. Charles Memorial Park. Therefore, the increase in noise exposure resulting from the Ocean Routing Airspace Alternative would not be considered a constructive use of the Frank M. Charles Memorial Park

The noise impacts associated with the Airspace Alternatives do not substantially impair any Section 4(f) sites because the activities, features, or attributes that contribute to its significance or enjoyment are not substantially impaired. Since no constructive use of Section 4(f) resources is anticipated, Section 4(f) of the DOT Act is not invoked and a Section 4 (f) determination is not required. Additionally, because the Airspace Redesign Alternatives would not result in a constructive use of Section 4(f) properties, it may also be concluded that there are no significant impacts to Section 4(f) properties.

Many Section 4(f) lands are also subject to the Land and Water Conservation Fund (LWCF) Act Section 6(f). Section 6(f) states that no public outdoor recreation areas acquired or developed with any LWCF assistance can be converted to non-recreation uses without the approval of the Secretary of the Interior. No 6(f) properties were determined to be significantly impacted by noise associated with the Proposed Action Airspace Redesign alternatives.

ES.6.5 Historical, Architectural, Archaeological, and Cultural Resources

Historical, architectural, archaeological, and cultural resources that will be affected by federally funded and licensed undertakings come under the protection of the National Historic Preservation Act of 1966 (16 U.S.C. 470), as amended. This Act, in Section 106, requires Federal agencies to consider the effects of such undertakings on properties listed, or eligible for listing, in the National Register of Historic Places (NRHP). Regulations related to this process are described in 36 CFR Part 800, Protection of Historic Properties.

To date, two historic sites have been identified in the APE, the Lazaretto and the Printzhof sites. The Lazaretto, located on the Delaware River in Essington, PA, and the Printzhof, also located in Essington, PA, would be exposed to a significant change in noise exposure. Although a significant noise change would result at both sites for the Modifications to Existing Airspace Alternative and the Integrated Airspace Alternative Variation without ICC, this noise does not alter the historic characteristics which made them eligible for listing in the National Register. A quiet setting is not a recognized purpose or attribute of either site. Moreover, the Lazaretto site has been purchased by a community to in part construct a fire house. The Printzhof, of which only the foundation remains, is located within a recreational park already subjected to aircraft noise. Even at 65.7 DNL the site is considered a compatible land use according to 14 CFR Part 150 guidelines. (These guidelines identify that noise levels up to 75 DNL as compatible with parks.) Therefore, the noise impacts would not constitute an adverse effect on these historic sites.

Pending the results of windshield surveys of the APE, analysis will be completed to determine if the alternatives would have an adverse effect on historic and cultural resources eligible for listing in the NRHP.

ES.6.6 Fish, Wildlife, and Plants: Specifically, Migratory Birds

The potential hazards from the simultaneous use of airspace by both birds and aircraft is a function of several factors: 1) the relative abundance of bird habitat adjacent to or in the proximity of airports, 2) the increased abundance of migratory birds resulting from successful management, 3) the increased pressure from the growing volume of air traffic, and 4) the difficult task of redesigning airspace within the primary bird impact zone of 500 feet of altitude or less.

Under the Airspace Redesign Alternatives being evaluated, aircraft departing from Runways 22R and 4L at EWR, Runways 9L/R and 27L/R at PHL, and Runway 4 at LGA would use new departure headings. Essentially, this means that ATC would be able to direct takeoffs into three or four departure paths rather than the previous one or two. Such flight paths could increase the exposure of any avian species that utilize habitat and airspace adjacent to these runways. However, the degree of exposure depends on whether habitat even exists in that location, the position of the habitat with respect to the flight-path and whether the headings achieve an altitude in excess of 500 feet before interfacing with the habitat. The data show that 73 percent of all birdstrikes occur within the first 500 feet of altitude, and the frequency of strikes decrease consistently by approximately 31 percent for every 1,000 feet of altitude above 500 feet.

Under the Proposed Action, impacts to various bird categories would be expected to

continue but not necessarily increase. Since most bird strikes and all mammal (e.g., deer) strikes take place on or near airport property, mortality to birds from aircraft are expected to continue as a component of a much larger mortality equation nationwide.

ES.6.7 Cumulative Impacts

Consideration of cumulative impacts applies to the impacts resulting from the implementation of the Proposed Action as well as other actions. The concept of cumulative impacts addresses the potential for individually minor but collectively significant impacts to occur over time. Council on Environmental Quality Regulations, Section 1508.7, defines “Cumulative Impact” as the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of the agency, Federal or non-Federal, undertaking such actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Projects within the vicinity of the Study Airports were reviewed to evaluate the potential for cumulative impacts. Airport improvement projects and other construction projects were considered and potential for cumulative impact is not anticipated.

Other airspace redesign projects were also considered during the evaluation of potential cumulative impacts. EISs for the Chicago Terminal Airspace Project (CTAP) and the Potomac Consolidated TRACON Airspace Redesign have been completed and the FAA issued Record of Decisions for both projects. Neither of the Study Areas for these projects overlaps the NY/NJ/PHL Metropolitan Area Airspace Redesign Project’s Study Area and the projects themselves do not induce growth or increase

capacity; therefore, significant cumulative impacts are not anticipated. The FAA is in the process of completing an EA for the Midwest Airspace Enhancement Airspace Redesign in the Cleveland/Detroit Metropolitan Areas. The environmental study area for this project does not overlap the Study Area for the NY/NJ/PHL Metropolitan Airspace Redesign and the project itself does not induce growth or increase capacity; therefore, significant cumulative impacts are not anticipated. Therefore, no cumulative impacts from the implementation of the NY/NJ/PHL Metropolitan Airspace Redesign and other airspace redesign projects are anticipated.

Summary of Environmental Impacts

Table ES.4 summarizes the potential for significant impacts associated with each alternative. Potential significant impacts exist for Noise/Compatible Land Use and Socioeconomic Impacts/Environmental Justice. There is no potential for significant impacts associated with the Ocean Routing Airspace Alternative.

ES.7 MITIGATION

Mitigation measures are those designed to avoid, minimize, rectify, reduce, eliminate, or compensate for significant impacts. Since significant noise-related impacts would potentially result from the implementation of any of the Airspace Alternatives, mitigation will be considered. Any mitigation measures will be developed upon receipt of public and agency comments regarding the Draft EIS. This ensures that public and agency input is appropriately considered in the development of mitigation. Also, potential specific mitigation strategies would be coordinated with the appropriate airport operators. Mitigation strategies that may be considered include:

- **Continuous Descent Approach (CDA):** Today, aircraft on approach perform a series of short descents and level offs to join the glide slope for landing. With CDA, aircraft on approach do a continuous steady descent to landing, which results in a higher altitude flight path and lower engine power levels. This reduces noise on the ground. CDA is currently in a limited testing and development phase at several airports around the U.S. Noise benefits would typically be realized for areas with DNL levels below 65 dB.
- **Nighttime abatement procedures:** During nighttime hours when traffic demand decreases, it may be possible to implement flight track and runway use programs that direct aircraft away from residential and noise sensitive land uses.
- **Additional use of water and/or industrial areas:** Proposed flight tracks may be refined so that aircraft are routed away from residential and noise sensitive uses, to the extent possible.
- **Sound insulation of impacted buildings with educational or medical uses:** these buildings may be eligible for Airport Improvement Program (AIP)-funded sound insulation, if sponsored by an airport as part of its Noise Compatibility Program or by a non-airport public agency per FAA Order 5100.38C.

ES.8 PUBLIC AND AGENCY INVOLVEMENT

In accordance with NEPA guidelines, the FAA has involved the public and other agencies in the impact assessment process.

During the informal pre-scoping and formal scoping period for the EIS, the public and agencies were given the opportunity to assist

Table ES.4

Summary of Potential for Significant Environmental Impacts

Environmental Impact Category	Alternative							
	Modifications to Existing Airspace		Ocean Routing Airspace		Integrated Airspace			
					without ICC		with ICC	
	2006	2011	2006	2011	2006	2011	2006	2011
Noise / Compatible Land Use	Yes	Yes	No	No	Yes	Yes	N/A	Yes
Socioeconomic Impacts / Environmental Justice	Yes	Yes	No	No	Yes	Yes	N/A	Yes
Secondary or Induced Impacts	No	No	No	No	No	No	N/A	No
Department of Transportation Act: Sections 4(f) and 6(f)	No	No	No	No	No	No	N/A	No
Historical, Architectural, Archaeological and Cultural Resources	No	No	No	No	No	No	N/A	No
Wild and Scenic Rivers	No	No	No	No	No	No	N/A	No
Fish, Wildlife, and Plants	No	No	No	No	No	No	N/A	No
Light Emissions and Visual Impacts	No	No	No	No	No	No	N/A	No
Air Quality	No	No	No	No	No	No	N/A	No
Natural Resources and Energy Supply	No	No	No	No	No	No	N/A	No
Construction Impacts	No	No	No	No	No	No	N/A	No
Farmlands	No	No	No	No	No	No	N/A	No
Coastal Resources	No	No	No	No	No	No	N/A	No
Water Quality	No	No	No	No	No	No	N/A	No
Wetlands	No	No	No	No	No	No	N/A	No
Floodplains and Floodways	No	No	No	No	No	No	N/A	No
Hazardous Materials and Solid Waste	No	No	No	No	No	No	N/A	No

Source: Landrum & Brown, Metron and HNTB analysis, 2005.

in determining the scope of issues to be addressed in this EIS. After the scoping meetings, the FAA held a number of agency meetings, distributed newsletters, and created a website to educate, inform, and receive feedback from concerned citizens and organizations.

The pre-scoping process included a series of airspace redesign workshops. Thirty-one workshops were held throughout the Study Area between September 22, 1999, and February 3, 2000. A total of 1,174 people attended the workshops and 712 comments were received.

The formal scoping period was January 22, 2001 through June 29, 2001. The scoping process consisted of 28 public meetings and three agency meetings held in various locations throughout the Study Area. A total of 1,031 people attended the scoping meetings and 901 comments were received.

In addition to formal scoping meetings, the FAA met with agencies with jurisdiction or special knowledge relative to the Airspace Redesign project on an as needed basis. Typically, each meeting consisted of introductions, a slide show presentation, and a video on the NY/NJ/PHL Metropolitan

Airspace Redesign project. The agencies were encouraged to share their concerns or comments regarding the Airspace Redesign. The agency comments and concerns were used by the FAA in assembling the materials needed for the Draft EIS. **Table ES.5** provides a list of agencies consulted. Periodic briefings were also given to members of Congress, the New Jersey and Delaware Congressional delegations, and various Governors' offices.

Currently, the Draft EIS is being distributed to interested federal, state, and local

agencies, and citizens for review and comment. (See Chapter Eight for a comprehensive list.) A series of public workshops/hearings will be held from February to April, 2006. These meeting locations will be listed on the website at http://www.faa.gov/nynjphl airspace_redesi gn/. The comment period will run through June 1, 2006. Comments can be sent to Steve Kelley, FAA NAR, c/o Nessa Memberg, 12005 Sunrise Valley Drive, MS C3.02, Reston, VA 20191, or submitted via email to faa.deis@ngc.com (please include the word "comment" in the subject line).

Table ES.5
Agencies Consulted

Airline Pilots Association
Brandywine Hundred, Delaware
Connecticut State Department of Transportation
Connecticut State Historic Preservation Officer
Delaware Department of Natural Resources and Environmental Control
Delaware State Historic Preservation Officer
Delaware Valley Regional Planning Commission
Eastern Region Helicopter Council
Environmental Protection Agency Regions 1, 2, and 3
Manhattan Borough President, Manhattan Borough President's Helicopter Task Force
Metropolitan New York Aircraft Noise Mitigation Committee (Governor's Group of Nine)
Mid-Atlantic Federal Partners for the Environment
NBAA Users Forum
New England Airspace/Range Council
New Jersey Department of Environmental Protection
New Jersey Department of Transportation
New Jersey State Commerce Department
New Jersey State Historic Preservation Officer
New York Department of Transportation
New York State Department of Environmental Conservation
New York State Historic Preservation Officer
Newark International Airport Aircraft Advisory Committee
New Jersey Acting Governor and Director of Aeronautics
Pennsylvania Department of Environmental Protection
Pennsylvania Department of Transportation
Pennsylvania State Historic Preservation Officer
Philadelphia Airport Authority
Port Authority of New York/New Jersey
Queens Borough President's Aviation Advisory Committee
State Aviation Directors
Town and Village Aviation Safety/Noise Abatement Committee
Transportation Research Board
